# S-9018.B3R

Type : Basic

## Conformances

AWS A5.5/ ASME SFA5.5 E9018-B3

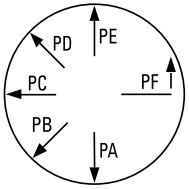
JIS Z3223 E6218-2C1M

EN 1599 - ECrMo2 B 3 2 H5

## Applications

- Low alloy steel (2.25%Cr-1%Mo)

## Welding Position




## Features

- Relevant elements P, Sn, As and Sb controlled (X-Factor ≤15ppm)
- Low-Hydrogen electrode (HDM ≤5ml/100g)
- Iron powder type electrode (high efficiency)
- Good impact value at low temperature

## Current

AC, DC ±

## Redrying Conditions

350~400°C (662~752°F) X 0.5~1hr

## Diameter / Packaging

| Diameter | Length | Standard | | Vacuum | | | | P.V.C | |
|---|---|---|---|---|---|---|---|---|---|
| mm (in) | mm (in) | packet | carton | packet | carton | packet | carton | packet | carton |
| | | 5kg(11lbs) | 20kg(44lbs) | 1.5kg(3.3lbs) | 15kg(3.3lbs) | 5kg(11lbs) | 20kg(44lbs) | 5kg(11lbs) | 20kg(44lbs) |
| 2.6 (3/32) | 350 (14) | | | √ | | √ | | √ | |
| 3.2 (1/8) | 350 (14) | | | √ | | √ | | √ | |
| 4.0 (5/32) | 400 (16) | | | √ | | √ | | √ | |
| 5.0 (3/16) | 400 (16) | | | √ | | √ | | √ | |

## Typical Chemical Composition of All-Weld Metal (%)

| C | Si | Mn | P | S | Cr | Mo | Sn | As | Sb | X-factor |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.072 | 0.62 | 0.79 | 0.009 | 0.010 | 2.22 | 0.97 | 0.0060 | 0.0020 | 0.0070 | 13.1ppm |

X-factor = (10P + 5Sb + 4Sn + As)/100 ≤ 15 (ppm)

## Typical Mechanical Properties of All-Weld Metal

| YS MPa(lbs/in²) | TS MPa(lbs/in²) | EL (%) | Temp °C(°F) | CVN-Impact Value J (ft·lbs) | Heat Treatment |
|---|---|---|---|---|---|
| 632 (91,700) | 721 (104,600) | 23.8 | 0 (32)<br>-20 (-4) | 121 (89)<br>81 (60) | 690°C(1274°F) X 1hr. S.R |
| 606 (87,900) | 703 (102,000) | 25.2 | 0 (32)<br>-20 (-4) | 132 (97)<br>105 (77) | 690°C(1274°F) X 2hr. S.R |

## Typical Welding Parameters / Amp.(A)

| Diameter mm (in) | 2.6 (3/32) | 3.2 (1/8) | 4.0 (5/32) | 5.0 (3/16) |
|---|---|---|---|---|
| Length mm (in) | 350 (14) | 350 (14) | 400 (16) | 400 (16) |
| F & HF | 55~90 | 90~130 | 130~190 | 190~240 |
| V-up, OH | 50~80 | 80~120 | 120~180 | - |